

PGI19

THE COST-UTILITY OF LIVER DISEASE DIAGNOSIS: ASSESSING GP DECISIONS FOR PATIENTS WITH ABNORMAL LIVER FUNCTION TESTS AND NO OBVIOUS LIVER DISEASE
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OBJECTIVES: Liver function tests (LFTs) are routinely requested in primary care often leading to further invasive and expensive investigations. In patients with raised LFTs without clinically apparent liver disease the appropriate level of follow-up can be unclear. The aim was to determine the most cost-effective GP strategy. **METHODS:** A retrospective population-based observational study followed-up all Tayside patients who had incident LFTs in primary care, with no clinically obvious liver disease ($n = 95,977$), to subsequent liver disease diagnosis. Prediction models allowed identification of patients at high risk of liver disease. A decision tree modelled the patient journey from two main GP decisions—retest or refer to secondary care. Transition probabilities of retests, referral and liver disease diagnosis were calculated from biochemistry and liver databases. The outcome was liver disease diagnosed within one year. Patients having further investigations carried out at referral were identified from virology, immunology and pathology datasets. Costs of investigations in primary and secondary care were obtained from various sources. Utilities were obtained from systematic review, and patient survey at the liver clinic at Ninewell's Hospital, Dundee. The incremental cost-utility ratio (ICUR) was calculated. Sensitivity analysis was performed for all parameters. **RESULTS:** For the average patient with abnormal LFTs the retesting strategy dominated referral. However, for patients in the top percentile of liver disease risk, referral to secondary care was more cost-effective (ICUR = £7588/year). The average cost of referral was £11.20 lower per patient than retesting. Retesting QALY gain was only 0.001. Sensitivity results varied although referral was in the main more cost-effective. **CONCLUSIONS:** This is the first cost-utility analysis of GP strategies for patients with abnormal LFTs. It is more cost-effective to refer patients with abnormal LFTs who have high risk of liver disease identified by the model, whilst those with average risk should be retested in primary care.

PGI20

ASSESSING THE COST AND EFFECTIVENESS OF TERLIPRESSIN COMPARED WITH SOMATOSTATIN FOR THE TREATMENT OF BLEEDING OESOPHAGEAL VARICES IN SPAIN

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OBJECTIVES: This study estimates the cost and the effectiveness of terlipressin and somatostatin in the treatment of bleeding oesophageal varices (BOV) in Spain. **METHODS:** A Markov model was created with the following five states: patient with cirrhosis, bleeding, re-bleeding, endoscopy treatment, transjugular intrahepatic portosystemic shunt, and death. Efficacy data on survival, re-bleeding and control of bleeding were obtained from high quality studies reported in Cochrane meta-analyses. Baseline outcomes related to the course of disease and health-state utilities were derived from published sources. Treatment costs and all related BOV costs were obtained from a panel of experts and published Spanish sources. **RESULTS:** The average aggregated treatment cost per person for all medical interventions at 5 years was lower for terlipressin-treated patients (€5165) compared with those treated using somatostatin (€5439). Costs

considered in the study were pharmacologic treatment costs, laboratory and diagnostic tests costs, specialist consultation costs and hospitalization costs. All costs are referred to year 2008. The incremental analysis comparing terlipressin with somatostatin using a cost per quality adjusted life year (QALY) approach indicated that terlipressin was the dominant BOV treatment option (i.e. it cost less and it was more effective). **CONCLUSIONS:** Results from base-case and sensitivity analysis indicate that terlipressin is a cost-effective treatment for BEV when it is compared to somatostatin in the Spanish setting.

PGI21

REDUCTION OF WORK PRODUCTIVITY ASSOCIATED WITH GASTROESOPHAGEAL REFLUX DISEASE (GERD) AND RELATED COSTS

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OBJECTIVES: To describe the relationship between increasing intensity of symptoms and reduced work productivity in GERD patients and effects on cost in a real life primary care setting in Spain. **METHODS:** In this retrospective, observational study, a random sample of all patients visiting a primary health care center for any reason related to GERD over a 4-month period were included. Patients were invited to participate, and those who accepted attended an interview during which clinical data were collected. Information regarding work productivity was collected using the Work Productivity and Activity Impairment Questionnaire GERD (WPAI-GERD) and symptoms using the Reflux Disease Questionnaire (RDQ). Both use a 7-day recall period and are validated questionnaires. **RESULTS:** Overall, 63,416 patients were identified during the study period. In 1727 (2.7%) patients GERD was a reason for the visit. Of these, 579 patients were randomly selected and 87% participated in the study; Mean age was 60 years (SD: 15.7), 59% were women. On average, patients were absent from work 2.9 hours per week, and mean work time lost due to reduced productivity was 7.7 hours per week. The mean monetary value of these productivity losses was €117.6€ per patient. There was an increase in cost of reduced productivity as the RDQ score increased: R^2 : 0.26, 0.23, 0.29 and 0.28 for heartburn, acid regurgitation, GERD and dyspepsia dimensions, respectively. When patients with high symptom load, according to frequency and intensity, were studied separately, coefficients increased to 0.34, 0.34, 0.42 and 0.36, respectively. The monetary value of productivity losses increased from €3.8€ to €31.0€ and to €132.7€ when heartburn intensity increased from mild to moderate and to severe, respectively. Likewise, when acid regurgitation was considered, the increase was from €7.7€ to 32.47 and to €175.18. **CONCLUSIONS:** GERD has a mayor impact on patients' productivity. Increasing intensity of symptoms was associated with the increased productivity loss.

GASTROINTESTINAL DISORDERS—Patient-Reported Outcomes Studies

PGI22

ASSESSING THE PATIENT-REPORTED IMPACT OF USING BOWEL CLEANSING PREPARATIONS

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OBJECTIVES: To develop the Bowel Cleansing Impact Review (BOCLIR), a new questionnaire designed to assess patient